

Application No.: 10/084,621
Response to Final Office Action dated August 13, 2003
Response filed November 13, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Currently amended):

A transgenic mouse whose genome contains a homozygous disruption of both the endogenous *Gpx1* gene and *Gpx2* gene ~~wherein said mouse develops cancer.~~

Claim 2. (Previously presented):

A cell from the transgenic mouse of claim 1.

Claims 3-4. (Canceled).

Claim 5. (Previously presented):

A cell of claim 2 which is selected from the group consisting of stem cells, epithelial cells and myelofibroblasts.

Claim 6. (Previously presented):

The transgenic mouse of claim 1 wherein the genetic background of the mouse is selected from the group consisting of a B6 mouse, a 129Sv/J hybrid mouse, a 129S3 hybrid mouse and a ½ B6, 1/4 129Sv/J and 1/4 129S3 hybrid mouse.

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Claim 7. (Previously presented):

A transgenic mouse as in claim 1 which further comprises a mouse which is a germ free mouse.

Claims 8-39 canceled.

Claim 40. (Currently amended):

A transgenic double knockout mouse as in claim 1 whose genome comprises a homozygous disruption of the endogenous *Gpx1* gene and a homozygous disruption of the endogenous *Gpx2* gene, wherein each disruption comprises the insertion of a transgene, ~~and wherein the combined disruptions result in a decreased level of GPX-1 and GPX-GI production and decreased number of cells producing GPX-I and GPX-GI in the transgenic mouse as compared to a nontransgenic mouse.~~

Claim 41. (Currently amended):

A transgenic double knockout mouse as in claim ~~40~~ 1 which exhibits one or more physiological symptoms selected from the group consisting of ileitis, colitis, hypothermia, decreased rate of weight gain, perianal ulceration, diarrhea, wasting syndrome, inflammatory bowel disease ~~and cancer of the lower gastro-intestinal tract,~~ one or more tumors in the small bowel and cancer of the small intestine.

Claim 42. (Previously presented):

A cell isolated from a double knockout mouse as in claim 40.

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Claim 43. (Previously presented):

A cell as in claim 42, selected from the group consisting of a stem cell, an epithelial cell and a myofibroblast.

Claim 44. (Previously presented):

A cell as in claim 43 which is a stem cell.

Claim 45. (Previously presented):

A cell as in claim 43 which is an epithelial cell.

Claim 46. (Previously presented):

A cell as in claim 43 which is a myofibroblast.

Claim 47. (Previously presented):

A transgenic double knockout mouse as in claim 40 which further comprises a mouse which is a germ free mouse.

Claim 48. (Previously presented):

A transgenic double knockout mouse as in claim 1 wherein said knockout mouse is a mouse with a B6 genetic background.

Claim 49. (Currently amended):

A transgenic double knockout mouse as in claim 1 wherein said knockout mouse is a ~~mouse with a~~ hybrid mouse having a $\frac{1}{2}$ B6, $\frac{1}{4}$ 129 SuJ and $\frac{1}{4}$ 129 S3 genetic background.

Claims 50-66 canceled.